a·dec®

A-dec® 341sp Specialty Delivery System

INSTALLATION GUIDE

Contents

A-dec 341sp Specialty Delivery System on
an A-dec Inspire® 397 Specialty Cabinet

Product Models and Versions Covered in This Document*

Models	Versions	Description
341sp	n/a	Delivery System
397	A	Dental Furniture

*Equipment shown in this document may include optional features or
accessories. Some product models, versions, and options in this document
may not be available in certain regions.*

Before You Begin

Before starting the® installation:

- Check with local building and code authorities about installation requirements specific to your location.

- Check that the manual air shut-off valve is installed.

- For information about dimensions, range of motion, and placing the utilities, see the *A-dec Inspire® 397 Specialty Cabinet and Related Modules Pre-Installation Guide* (p/n 86.1101.00).
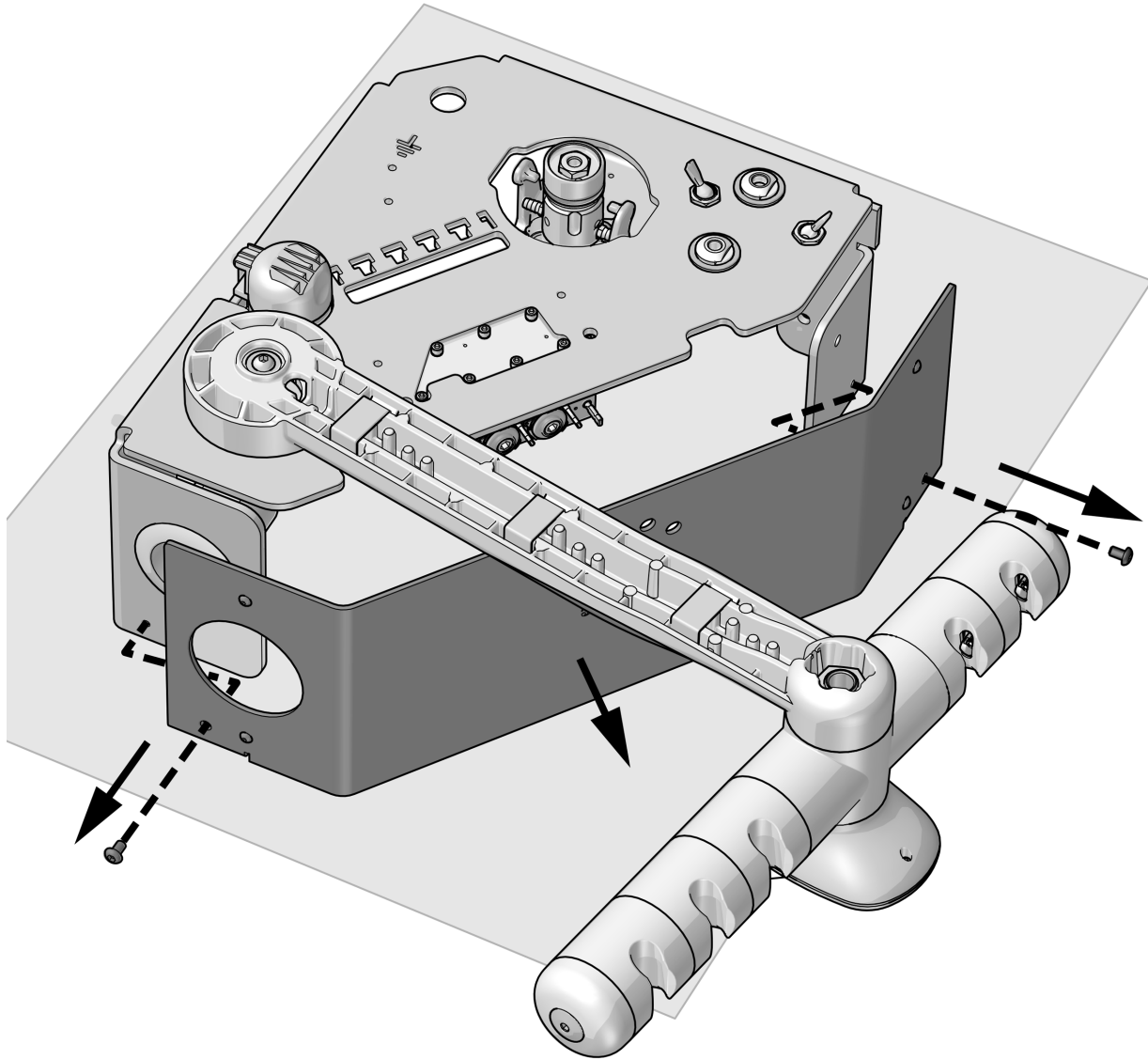
Recommended Tools

- Diagonal cutters
- Wire strippers

- Anti-static wrist strap
- 3/8" combination wrench

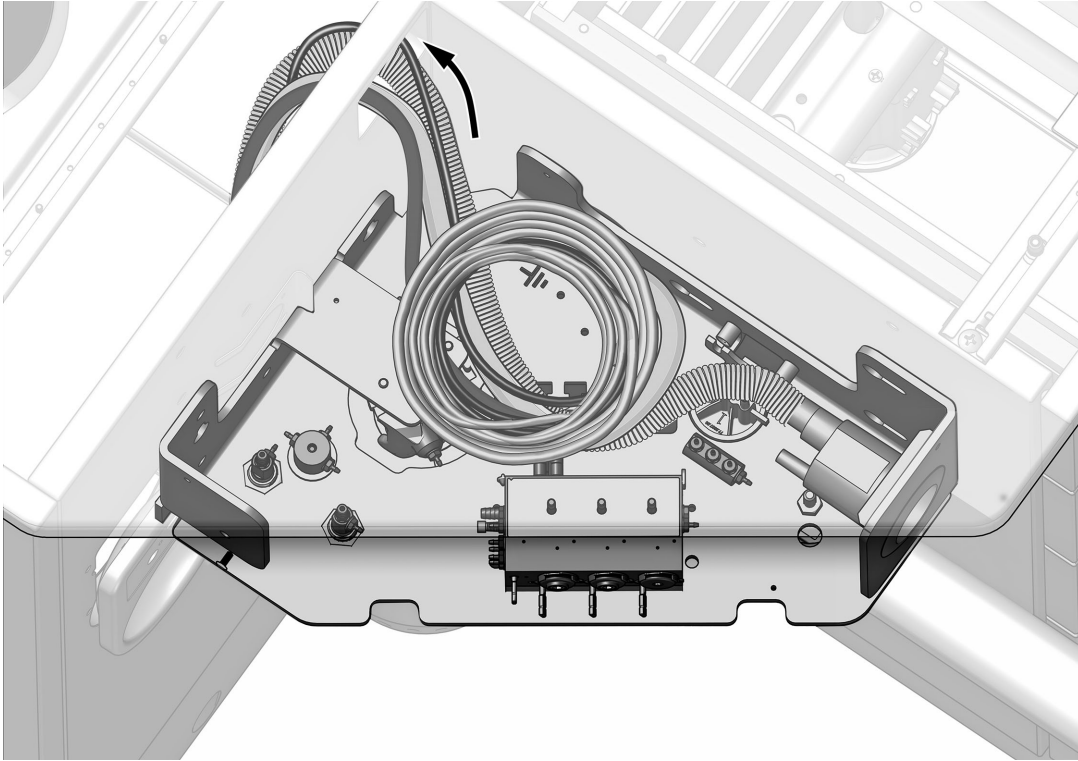- Hex key set
- Handpiece pressure gauge

Install the Delivery System

Recommended Tool

- 1/8" and 3/16" hex key
- Diagonal cutters

1 Place the delivery system upside down on a flat, secure surface.

2 Use a hex key to remove the two screws securing the cover to the delivery system, then remove the front cover. Keep the screws to reinstall the cover.
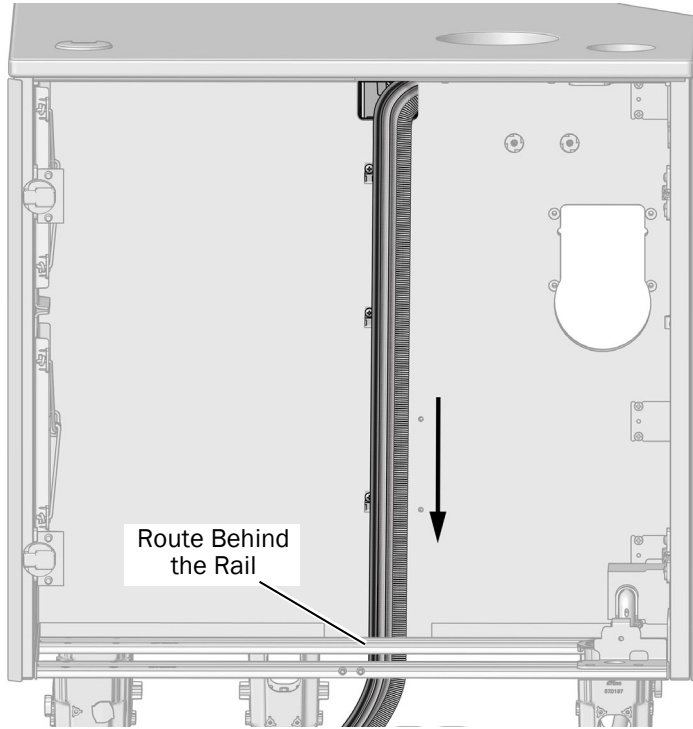
3 Route the delivery system umbilical, wires, data line, and vacuum line through the cutout in the front of the cabinet.
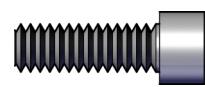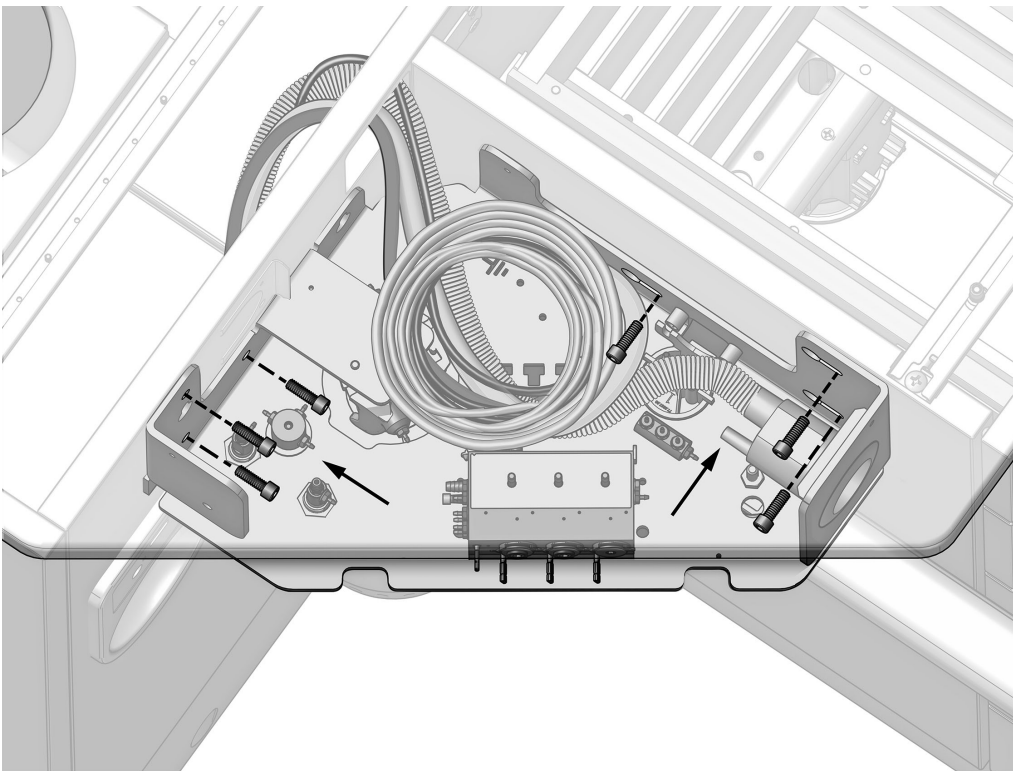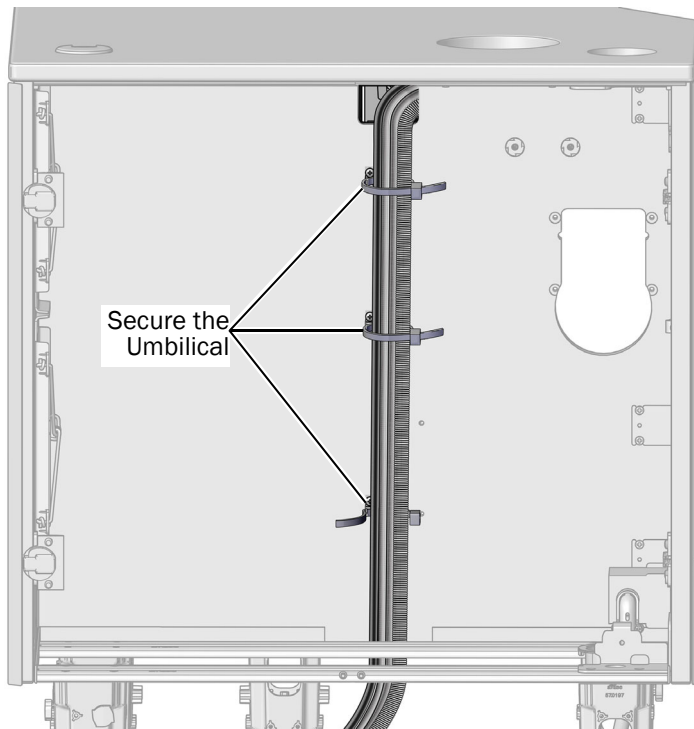

Actual Size

4 Use six 1/4"-20 x 3/4" mounting screws and a hex key to secure the delivery system to the cabinet.

5 Route the delivery system umbilical and vacuum line down the cabinet wall and between the wall and support rail to the space under the cabinet.


6 Use three cable ties to secure the umbilical and vacuum line to the brackets on the cabinet wall.

Connect the Data Line and Power Cables at the Cabinet

Connect the Data Line at the Cabinet

> **NOTE**   Skip this section if the system includes a 300 W stand-alone power supply. This section applies to systems with a Universal Power Supply, 511, and 311/411 power supplies only. If the system includes a 300 W power supply, go to "Connect the Power Cables to an A-dec 300 W Stand-Alone Power Supply" on page 7.

Remote Data Line To Chair Power Supply
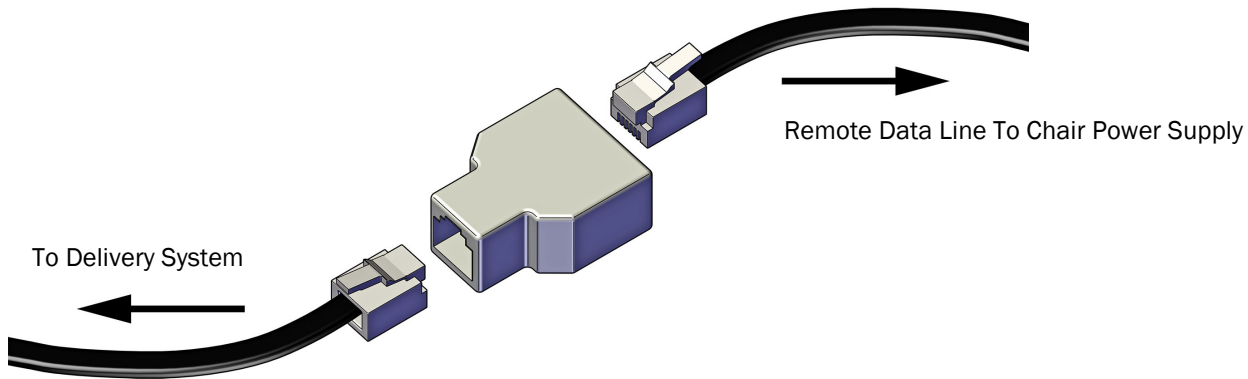
To Delivery System

1 Insert the data line from the delivery system into the Y connector.

2 Insert the remote data line into the Y connector, then run it to the power supply at the chair.

Connect the Power Cables at the Cabinet

> **WARNING**   Failure to turn off or disconnect the power before you begin this procedure can lead to product damage and result in serious injury or death.

1. Turn off power to the system.

Complete the instructions for the system's configuration:

Connect the Power Cables to an A-dec 300 W Stand-Alone Power Supply

1 Connect the six-position connector from the delivery system to the power supply.

Connect the Power Cables to Remote Power Cables

To the
Delivery System

Delivery System Remote Power
Cable to the Dental Chair
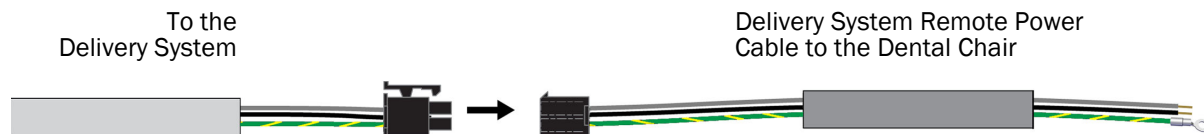
1. Connect the six-position connector from the delivery system to the connector on the remote power cable.

2. Route the remote power cable to the dental chair power supply.

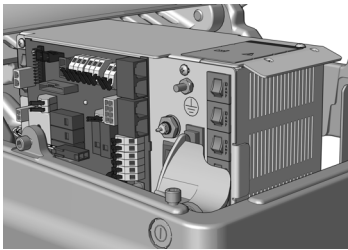# Connect the Remote Power Cables and Data Line at the Dental Chair

> ⚠️ **ATTENTION** Circuit boards are sensitive to static electricity. Electrostatic Discharge (ESD) precautions are required when touching a circuit board or making connections to or from the circuit board. Circuit boards should be installed only by an electrician or qualified service person.
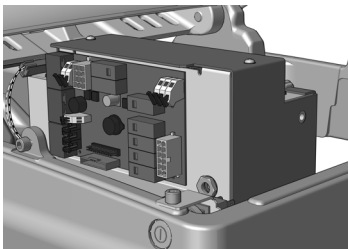
> ⚠️ **WARNING** Failure to turn off or disconnect the power before you begin this procedure can lead to product damage and result in serious injury or death.

1. Turn off the power to the chair.

Complete the instructions for your system's configuration:

Connect the Remote Power Cables and Data Line to an A-dec Universal Power Supply Manufactured After June 2023 9

Connect the Remote Power Cables and Date Line to an A-dec 511 Power Supply Manufactured Before June 2023 10

Connect the Remote Power Cables and Date Line to an A-dec 311/411 Power Supply Manufactured Before June 2023 12

Connect the Remote Power Cables and Data Line to an A-dec Universal Power Supply Manufactured After June 2023
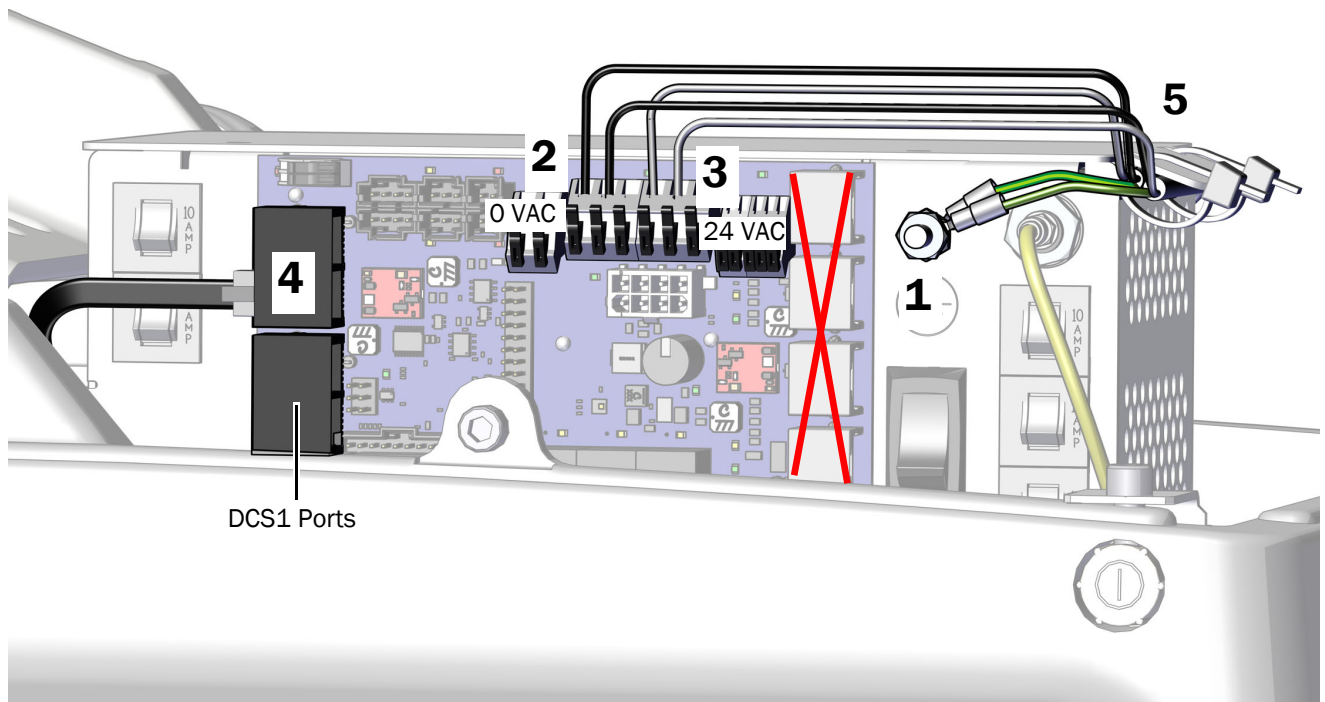
Recommended Tool

- 3/8" combination wrench

1. Attach the green/yellow ground wires from the remote power cables to the ground terminal.
2. Connect the black wires from the remote power cables to 0 VAC.
3. Connect the gray wires from the remote power cables to 24 VAC.

> ⚠️ **CAUTION** Plugging the black DCS1 data line into a DCS2 port toward the toe of the chair can damage the product.

4. Plug the black data line from the delivery system into any DCS1 data port.
5. Once all of the electrical connections have been made for the system's modules, secure the wires under the lip on the power supply.

DCS1 Ports

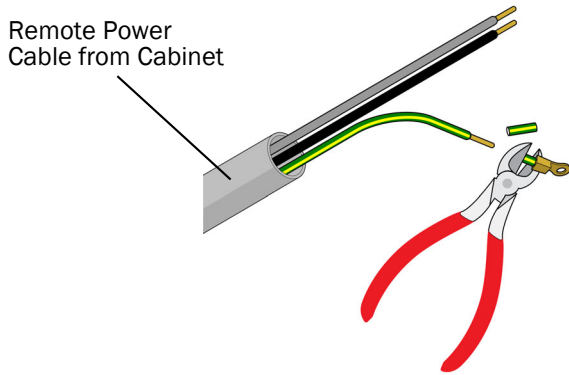**Next Step** See "Connect the Tubing" on page 13.

Connect the Remote Power Cables and Date Line to an A-dec 511 Power Supply Manufactured Before June 2023

Recommended Tools

- Diagonal cutters
- Wire strippers

Task 1.

1. Cut the eyelet off of the green/yellow ground wire of the delivery system and assistant's instrumentation remote power cables and strip back the wires 3/8" (10 mm).

Remote Power
Cable from Cabinet

2. Use wire connectors to connect the remote power cable black wires, gray wires, and ground wires to a 6-position power adaptor cable, matching wire colors.

Remote Power Cable
from Cabinet

Power Adaptor Cable
to Power Supply

6-position
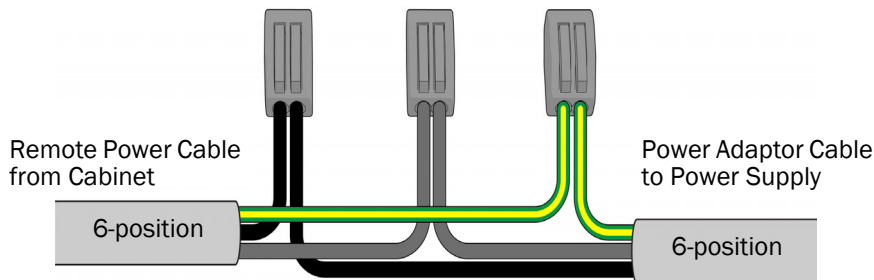
6-position

Task 2.

1. Plug in the six-position power adaptor cable.

**2.** Plug in the data line to any data port on the power supply.
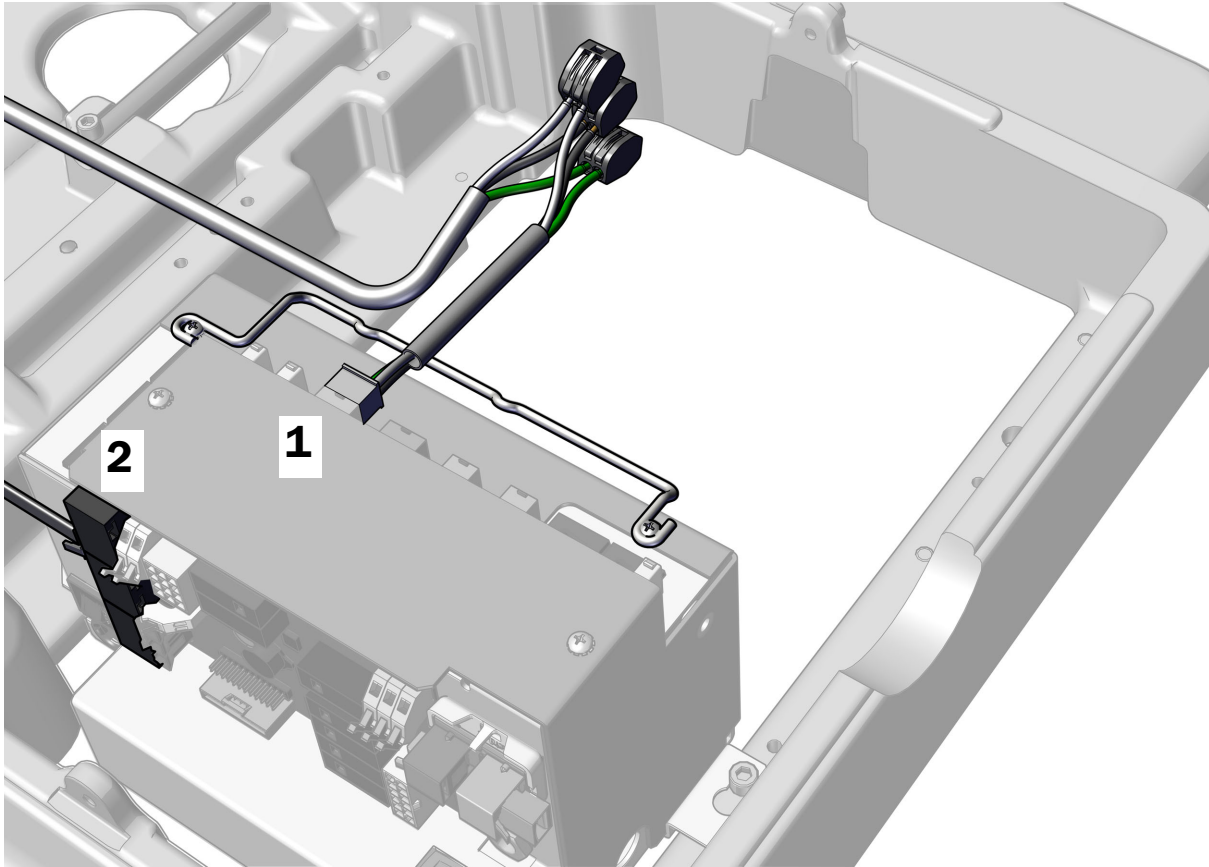
Next Step See "Connect the Tubing" on page 13.

Connect the Remote Power Cables and Date Line to an A-dec 311/411 Power Supply Manufactured Before June 2023

Recommended Tool

- 3/8" combination wrench

1. Attach the green/yellow ground wires from the remote power cables to the ground terminal.

2. Connect the black wires from the remote power cables to 0 VAC.

3. Connect the gray wires from the remote power cables to 24 VAC.

4. Plug the black DCS1 data line from the delivery system into one of the DCS1 data ports on the chair circuit board. It does not matter which port the data line plugs into.

5. Once all of the electrical connections have been made for the system's modules, use cable ties to secure the wires and data line under the lip.
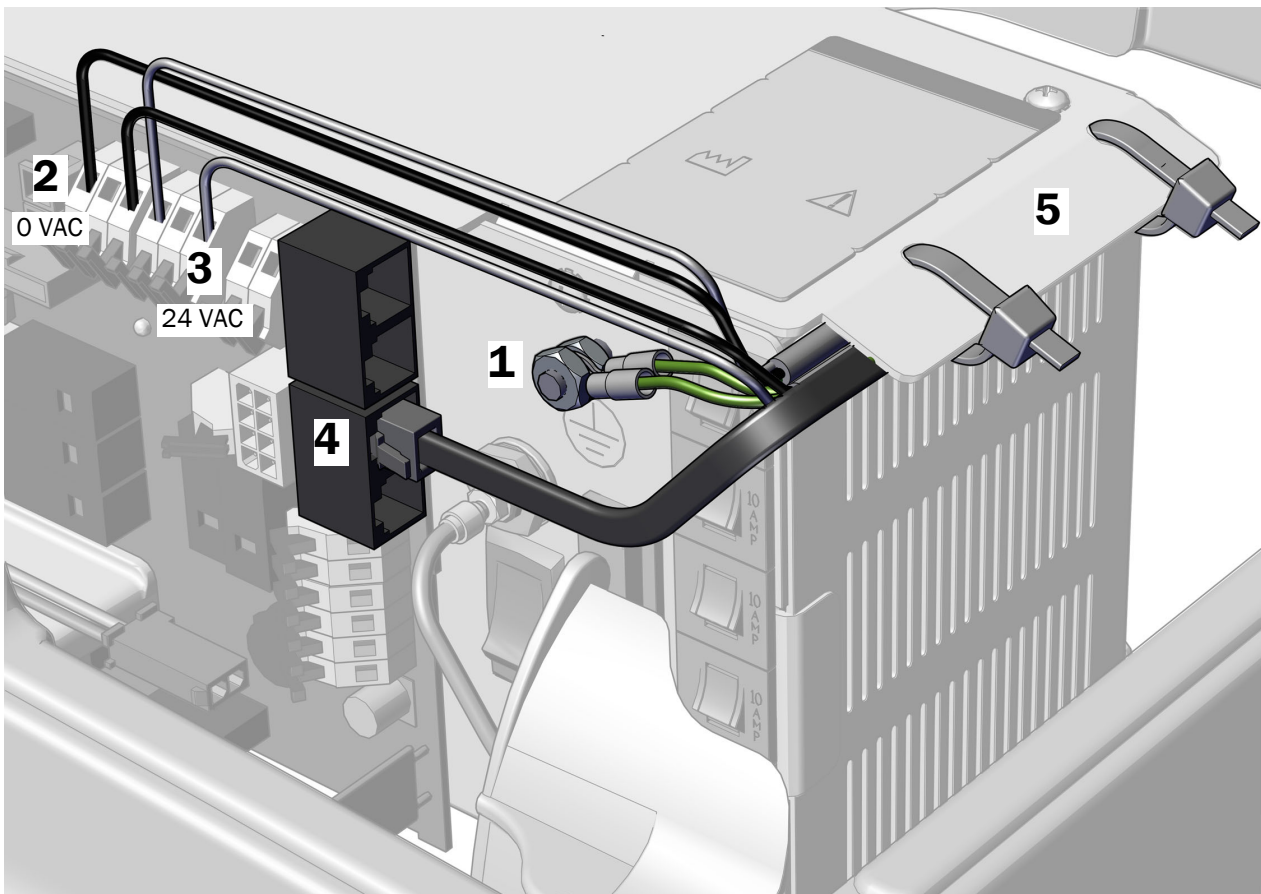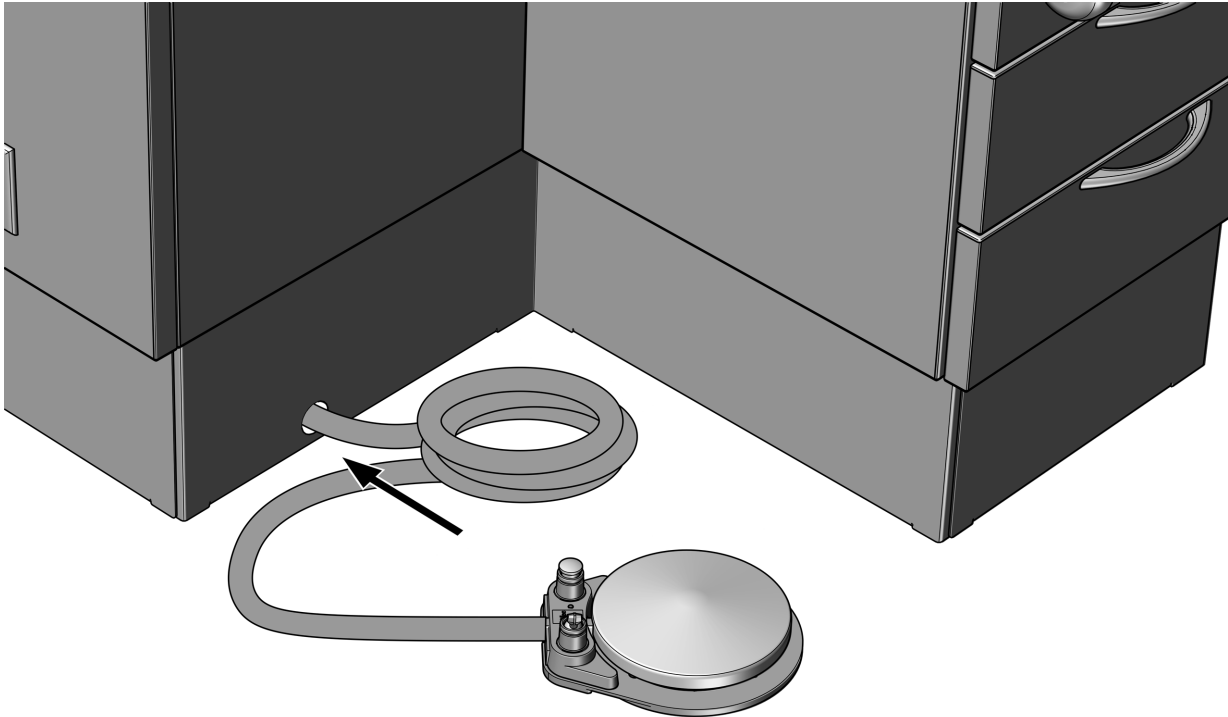
Connect the Tubing

> **STOP** **READ THIS!** Install the base cover below the delivery system before routing tubing. See the *A-dec Inspire 397 Specialty Workstation Installation Guide* (p/n 86.1084.00) for installation instructions.

Route the Foot Control Tubing

**1** Route the foot control tubing through the hole in the base cover and into the cabinet.

> **!** **NOTE** A-dec provides sufficient tubing length for a remote mount foot control, but an extension may be needed.

Connect the Tubing

Connect the tubing according to the following flow diagram.

To Foot Control

To Delivery System

⚠ **CAUTION**   Do not connect the blue or white tubing.

Power Supply
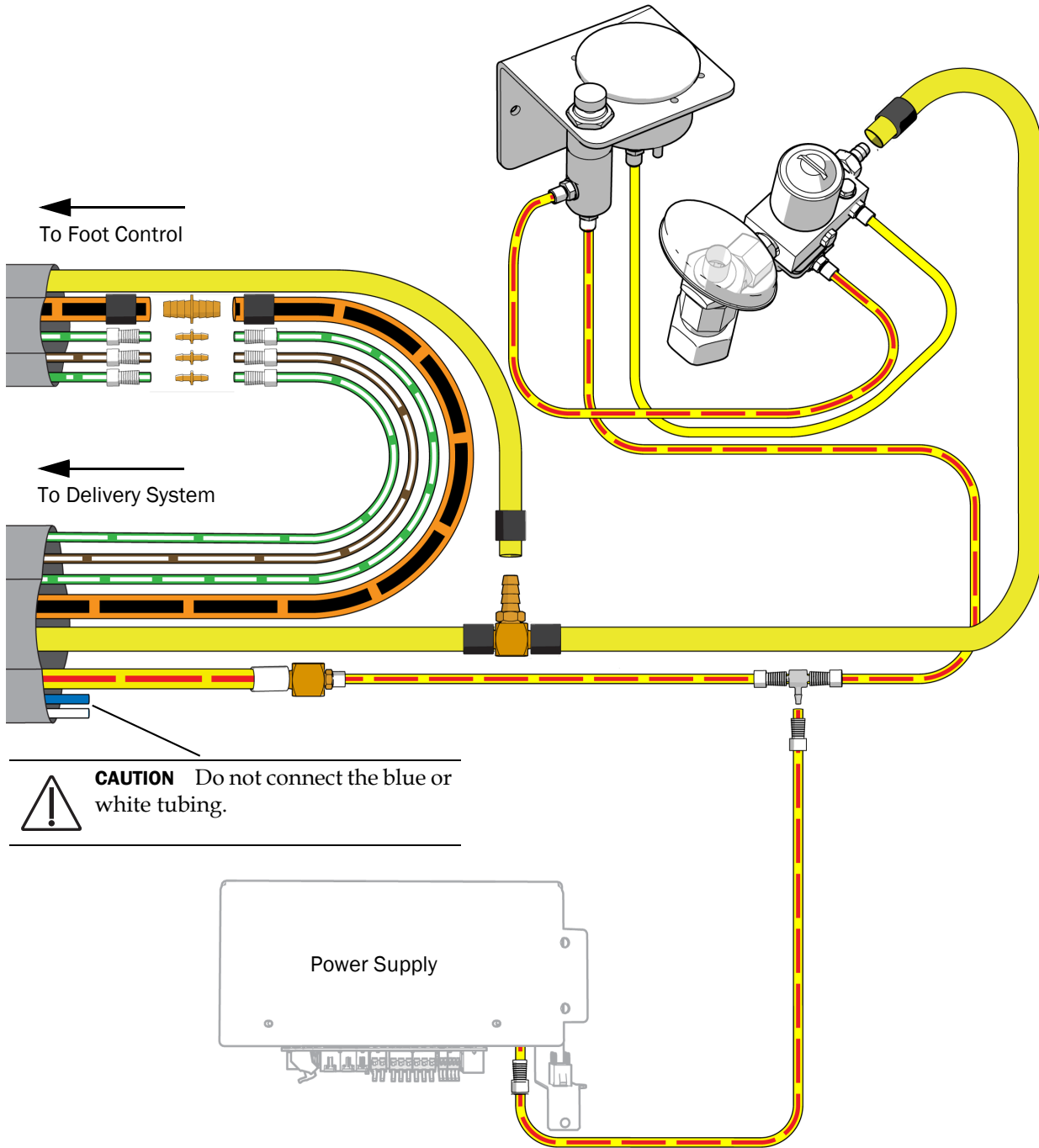
Prepare and Adjust the System

Install the Water Bottle

IMPORTANT   A-dec recommends that the dental team perform a shock treatment on the dental unit waterlines before they use the system for the first time, and establish an ongoing waterline maintenance program. For more information, see the *Waterline Maintenance Guide* (p/n 85.0983.00) and *A-dec Self-Contained Water System Instructions For Use* (p/n 86.0609.00).

1 Apply A-dec silicone lubricant on the receptacle O-ring.

2 Push the water bottle up onto the water bottle receptacle and turn it to the right.
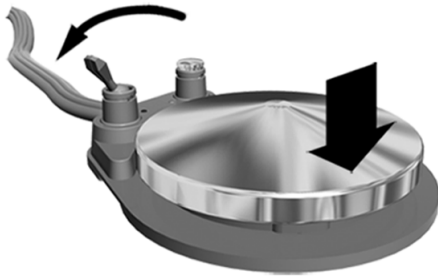
Adjust the Handpiece Drive Air Pressure

Recommended Tool

- Handpiece pressure gauge

> **NOTE**   Use a handpiece pressure gauge attached to the handpiece tubing for exact drive air measurement. One bar equals 14.5 psi.

1. Lift a handpiece from the holder and install a handpiece pressure gauge.

2. Flip the toggle to dry and step all the way down on the disc.

3. With the handpiece running, check the handpiece pressure gauge.

> **CAUTION**   Exceeding the manufacturer's recommended drive air pressure increases the risk of damage and may significantly decrease the life of your handpiece components.
> For the proper drive air pressure, see the handpiece manufacturer's Instructions for Use.

4. Inside the control head, adjust the drive air pressure to meet the manufacturer's specifications. Turn the stem clockwise to decrease pressure.
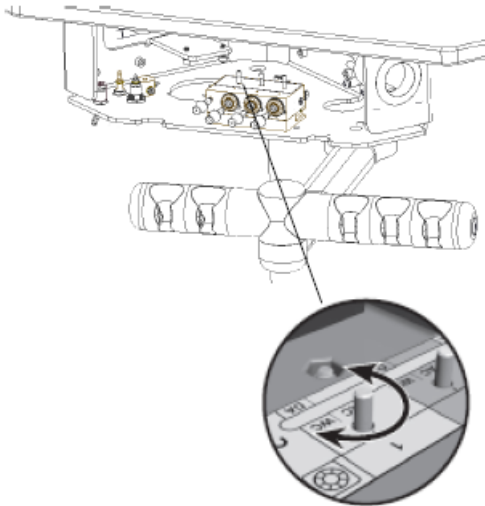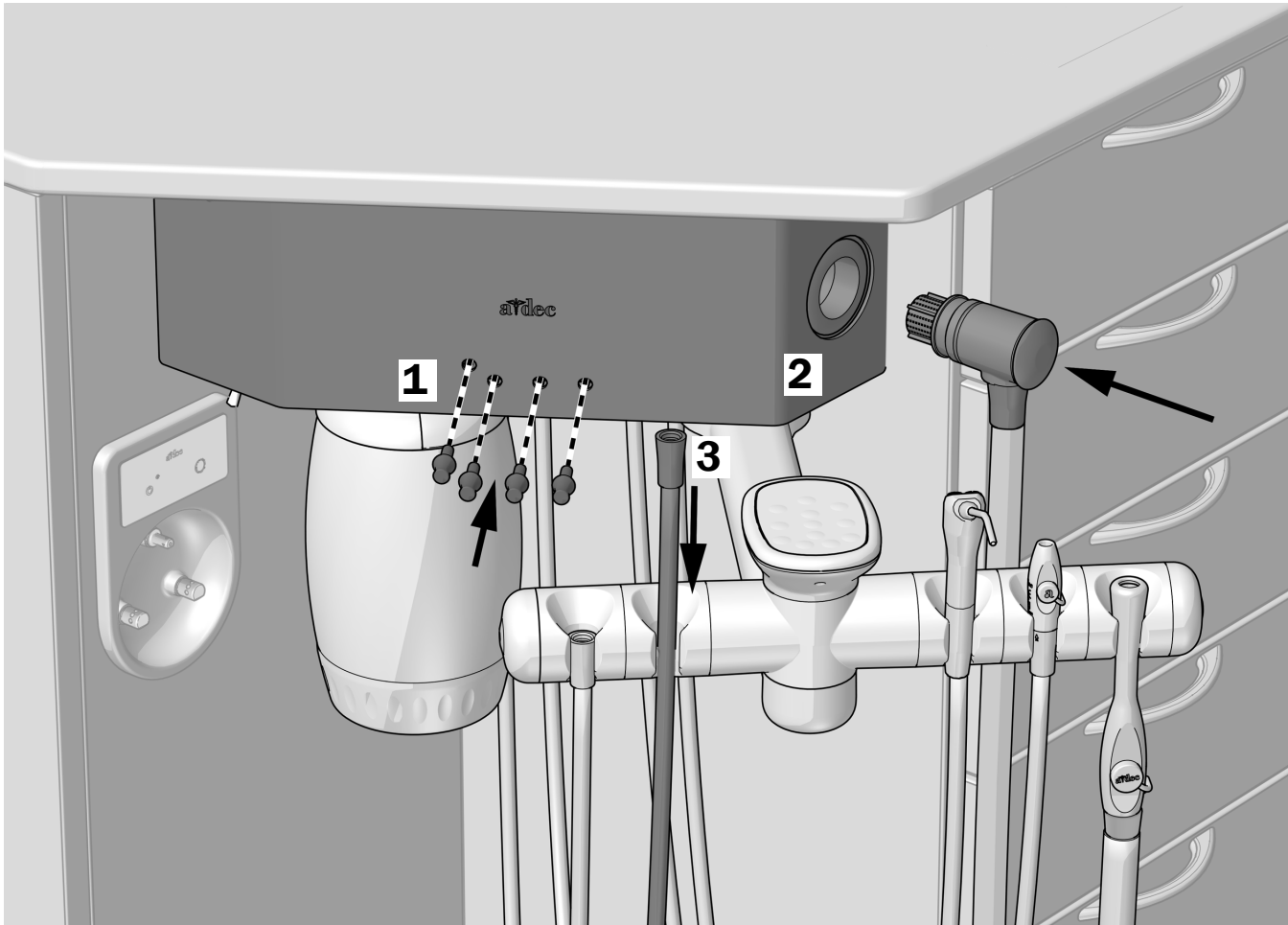
Prepare the Delivery System

Recommended Tool

- 1/8" Hex key

Task 1.

1 Use a hex key and two screws to install the front cover.

Task 2.

1 Install the adjustment keys and make sure they are fully seated.

2 Install the HVE vacuum cannister and filter screen.

3 Place the handpiece, HVE, and syringe tubing in the instrument holder.

Customize Touch Control Settings

There are no delivery system controls to set up or customize with a standard touchpad.

Test the System

After you have completed the installation, use the following checklist to test the delivery system; then follow up with the customer.

Delivery System

- The handpieces function properly and are set to the doctor's preferences:
    - Water coolant, air coolant, and spray.
    - Handpiece tubing flush.
    - Handpiece holder valves and switches.
    - Handpiece drive air pressure.
- Foot control operates properly.

Utilities

- Regulated air pressure to the delivery system is at 80 psi (552 kPa).
- If the system includes a floor box, it is free of air and water leaks.
- Tubing and connections are not kinked and are free of air and water leaks.
- Excess tubing and wires are coiled and stored away from moving parts.

Regulatory Information and Warranty

For required regulatory information and the A-dec warranty, see the *Regulatory Information, Specifications, and Warranty* document (p/n 86.0221.00) available in the Resource Center at www.a-dec.com.

For quick access to this document online, scan, tap, or click this QR code, which points to a-dec.com/regulatory-guide.

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